I claim:

1.

Disintegrating apparatus for waste wood and other fragmentable material, comprising:

a. a material receiving housing open at one end for receiving material to be fragmented and at another end for the discharge of fragmented material, and having opposing side walls;

b. a rotor assembly comprising parallel shafts with an array of axially spaced cutter elements on each disposed in axially intermeshing relation with cutter elements on the other;

c. mechanism for driving said shafts in counter-rotation;

d. said cutter elements comprising radially projecting, circumferentially spaced teeth with rotatively leading first cutting edges thereon configured to take an aggressive bite of said material; and

e. cutter teeth segments carried on said teeth to project generally radially therefrom and having second cutting edges thereon radially outwardly of said first cutting edges configured to take an initial axially narrower bite of said material.

2.

The apparatus of claim 1 wherein said cutter segments have hook shaped leading faces disposing said second cutting edges forwardly rotatively of said first cutting edges.

3.

The apparatus of claim 2 wherein said cutter segments have third cutting edges mounted on rotatively trailing faces to face in a trailing direction and assist removal of any jamming material when said counter-rotating shafts are driven in reverse direction.

4.

The apparatus of claim 2 wherein said cutter segments are mounted in axially staggered relation on said cutter elements.

5.

The apparatus of claim 2 wherein said cutter segments are helically disposed on said cutter elements.

6.

The apparatus of claim 2 wherein said cutter elements have leading faces and radially outer faces merging to said first cutting edges and said cutter segments are L-shaped to conform to the configuration of the leading faces of said cutter elements and radially outer faces of said cutter elements.

7.

The apparatus of claim 2 wherein said cutter elements are hook-like in shape with undercut leading relief faces.

8.

The apparatus of claim 1 wherein a vehicle frame supports said housing which has an open top, a wood bin is mounted adjacent thereto to pivot upwardly and supply wood to said open top, and a vehicle wheel mechanism is pivotally mounted to move from a retracted position to a position in which it supports said vehicle frame for travel.

9.

The apparatus of claim 1 in which comb members are mounted on said opposing side walls of said housing and incorporate comb teeth axially spaced apart to receive said cutter elements and segments in intermeshed relationship, said comb members having anvil surfaces in position to coact with said first and second teeth.

10.

The apparatus of claim 9 wherein said comb teeth are generally triangularly shaped with curvilinear sides leading to a frustrum which wipes the adjacent shaft, and anvil surfaces for wiping said second edges and coacting with said first edges and provided between said comb teeth.

11.

The apparatus of claim 1 wherein a breaker assembly is mounted adjacent said rotor assembly and comprises a pair of divergent plates extending toward said rotor assembly, each plate being formed with axially spaced anvil recesses to wipe said second edges and coact with said first edges.

12.

Fragmenting apparatus for waste wood and other fragmentable material, comprising:

a. a vehicle frame;

b. a material receiving housing open at one end for receiving fragmentable material and at another end for its discharge, and having opposing side walls;

c. a rotor assembly comprising parallel shafts with an array of axially spaced hook shaped rotary cutters thereon disposed in intermeshed relation;

d. a series of axially spaced teeth mounted stationarily to intermesh with said cutters and provide anvil surfaces to coact with said cutters;

e. a material storing bin is mounted adjacent said housing and is movable to a raised position to dump material into said housing; and

f. a wheel mechanism is mounted for pivotal movement from an inoperative retracted position to a vertical position supporting the vehicle frame for travel.

13.

The apparatus of claim 12 wherein said cutters comprise cutter elements in star array with peripheral relief surfaces terminating in a relatively leading direction in first cutting edges having undercut concave leading faces, there being cutter segments mounted to said peripheral surfaces to provide second cutting edges rotatively leading said first edges.

14.

A cutter disc for the drive shafts of rotor assemblies on wood fragmenting machines, comprising:

a. a shaft receiving annular base having cutter elements radially projecting in star-like array with hook projections thereon, providing first cutting edges extending axially, and

b. cutter segments mounted on said cutter elements to extend radially beyond said first cutting edges and providing second ripping cutting edges of lesser axial extent than said first edges.

15.

The cutter disc of claim 14 wherein said cutter elements have peripheral relief surfaces terminating forwardly in a rotatively leading direction in said first cutting edges which merge with undercut concave surfaces forming a leading face portion rotatively, and said segments mount on said elements to project radially therefrom outwardly.

16.

The cutter disc of claim 15 wherein said segments are provided in axially staggered helical formation circumferentially on said cutter elements.

17.

The cutter disc of claim 16 in which said segments are L-shaped and adhere to said peripheral and facing surfaces of each cutter element.

18.

The cutter disc of claim 14 wherein said segments are configured to provide third cutting edges facing in a trailing direction rotatively.

19.

A method of constructing a fragmenting machine for fragmenting wood and other fragmentable material, comprising:

a. providing a vehicle frame;

b. providing a material receiving housing on said frame open at one end for receiving fragmentable material and at another end for discharging fragmented material;

c. mounting a rotor assembly within said housing comprising drive shaft mechanism with a series of axially spaced cutter elements thereon;

d. connecting drive mechanism to said shaft mechanism to rotate said cutter elements;

e. providing a fixed toothed member having teeth projecting into said rotor assembly between said cutter elements;

f. providing said cutter elements as a series of hook shaped radial projections having peripheral relief surfaces leading to first axially extending cutting edges and undercut rotatively leading faces;

g. providing cutter tooth segments fixed to said projections to extend radially outward thereof and provide initial ripping second cutting edges of less axial extent than said first cutting edges facing in a rotatively leading direction; and

h. providing anvil surfaces in association with said toothed

member to coact with said first and second cutting edges.

20.

The method of claim 19 wherein said segments on said projections comprise a circumferentially spaced axially staggered array and said segments are configured to provide third cutting edges on their rotatively trailing facings.